

DNR 2006 Recycling Survey Executive Summary

Wisconsin residents remain committed to recycling and have increased both the amount and number of different materials they recycle since the state recycling law was first passed in 1990, a new Wisconsin Department of Natural Resources (DNR) survey has found.

The 2006 telephone survey of 555 state households follows eight previous surveys the DNR has sponsored since 1990 to track the progress of residential recycling in Wisconsin. The University of Wisconsin Survey Center conducted the new survey, which has a margin of error of plus or minus 5 percent.

Residents' responses to these surveys show the progress the recycling program has made in the 16 years since its inception. Community recycling programs have been established and state residents have responded with enthusiasm. The recycling of household wastes is likely one of the most popular and visible environmental programs in the state.

Trends in residents' recycling and commitment to recycling

Overall, survey results show that Wisconsin residents remain strongly committed to recycling, and have increased their recycling efforts as community recycling programs have matured. More than 90 percent of households favor the state recycling law and are committed to recycling (see Table 1).

Households have dramatically increased their recycling rates for several common recyclables, especially plastic and glass containers and paper products such as magazines and cardboard (see Table 2). The average number of different materials households recycle has more than doubled (see Table 3). Nearly all survey respondents are now aware of a recycling program in their communi-

Table 1: Households' support for recycling

Level of support for WI recycling law	1991	2006
Strongly favor	42%	61%
Favor	41%	22%
TOTAL	83%	93%

Household commitment to recycling	1992	2006
Strongly committed	62%	72%
Somewhat committed	34%	25%
TOTAL	96%	96%

Table 2: Households' recycling of materials

Item	1990	2006
Newspapers	56%	80%
Other paper	15%	58%
Magazines	--	75%
Cardboard	19%	79%
Aluminum cans	80%	89%
Other metal cans	27%	92%
Glass	46%	89%
Plastic	39%	88%

Table 3: Trends in household recycling

Trend	1990	2006
Average # of items recycled by household	2.8	6.6
% of respondents aware of a community recycling program	59%	95%

ties, compared with less than two-thirds of 1990 respondents (see Table 3). About two-thirds of communities have curbside pickup for recyclables, while about one-fifth still rely exclusively on drop-off sites where residents bring their recyclables. Curbside programs usually recycle more types of items than drop-off programs.

Trends in recycling awareness

While participation in recycling programs remains high, respondents report a decline in outreach from their local community. Less than three-fourths of households report receiving educational materials from their local municipality in the past year. Only one-fifth remember receiving information on waste reduction (a decline from 1998). Less than two-thirds of households that did receive information from their local communities thought that information was “good” or “excellent” (see Table 4). A decline in outreach and the quality of outreach information by local communities is a concern as there is strong evidence from around the country that continued outreach is essential for the continued effectiveness of recycling programs.

There has also been a decline in schoolchildren bringing home information on recycling, from nearly two-thirds in 1998 to less than half in 2006. This may mean that some students are not receiving information on recycling, or that this information is not an area of emphasis. This is troubling, because DNR education efforts build on the recycling message to

include other ways to improve environmental quality. One possibility may be that schools consider recycling “old news,” and so providing more updated recycling materials could be a solution.

A low awareness of DNR-sponsored radio and TV public service ads on recycling (less than 1 in 10 respondents had heard or seen the ads) shows that the low level of advertising did not raise awareness. A targeted, multi-media approach with a higher level of advertising may be needed to reach the right audience.

Emerging challenges

For the first time, the survey contained questions about specific recycling challenges: the open burning of trash, the recycling of items containing mercury and electronics recycling. Survey responses point to the need for increased efforts by the recycling community to address these topics.

Open burning

A small number of households (17, or 3 percent) report burning trash, but a disturbing 15 of the 17 households were not worried about the health effects of burning trash. Since preventing open burning has been a focus of several DNR programs, the fact that it is still occurring points to the need for improved and/or increased outreach efforts.

Mercury

Environmental and human health messages about mercury from federal state and local governments and environmental and health groups are having an effect, but mercury remains a problem in household hazardous waste. In 2006, one-fourth of households were very concerned and nearly half were somewhat concerned about mercury, a noticeable increase from 2002 (see Table 4). Still, about one-fourth of households remained not very concerned about the risks of mercury, and reaching this group offers a focus for continuing mercury education efforts.

The survey indicates that many households still have devices that contain mercury, including one-

Table 4: Satisfaction with local recycling info

Job local recycling info has done	1998	2006
Excellent	27%	22%
Good	42%	39%
Fair	19%	24%
Poor	10%	13%
TOTAL “Excellent” or “Good”	69%	61%

Table 5: Mercury in WI households

Level of concern about health effects	2002	2006
Very concerned	15%	25%
Somewhat concerned	36%	47%
Not too concerned	49%	28%
TOTAL with some concern	51%	72%

Households with mercury devices	1992	2006
Thermometers	32%	32%
Thermostats	20%	20%

third who have mercury-containing thermometers and one-fifth with mercury-containing furnace thermostats (see Table 4). This is about the same number as reported in the 2002 survey, indicating that little progress has been made in collecting these remaining devices. Furthermore, nearly 90 percent of households reported that their communities either did not have a mercury collection program, or the respondents were not aware of one. Together, this evidence indicates that we may need new strategies for reaching certain locations or populations.

Electronics

Obsolete or unwanted electronics, known collectively as e-waste, are a growing problem in the waste stream because of rapid technology changes and the hazardous materials many electronics contain. Survey results illustrated the large number of electronics that households will need to recycle or dispose of in coming years.

Computers: Four-fifths of the households in the survey had at least one computer (see Table 6), with an average of 1.5 computers per household, though nearly one-quarter of the computers are broken or unused. Based on current population estimates, that translates to nearly 3.8 million computers in state households—a figure that does not include commercial/industrial computers. Given the typical shelf life of a computer of three years, there is a significant recycling challenge ahead. Among the households in the survey, only one-fifth planned to recycle their broken or unused computers, with the rest planning to donate, store, salvage, trash or deal with the computers in some other way (see Table 6).

Televisions: Only one household in the survey reported having no TV, and the majority had multiple TVs (see Table 7). The average household has three. Using the same population and household estimates, there are nearly 7.5 million TVs in Wisconsin households. People tend to hold on to TVs for many years, but, given the Federal Communications Commission's mandated switch to digital

Table 6: Household computers in WI (2006)

Number of computers per household	%
None	20%
One	41%
Two	22%
Three or more	17%
TOTAL with at least one computer	80%
Plans for unused/broken computers	
	%
Recycle	20%
Store	14%
Give away	14%
Donate	11%
Salvage	11%
Trash	3%
Other	16%

Table 7: Household televisions in WI (2006)

Number of televisions per household	%
None	--
One	14%
Two	29%
Three	25%
More than three	32%
TOTAL with at least one television	100%

Note: only one household reported not having a television

Table 8: Household cell phones in WI (2006)

Number of cell phones per household	%
None	28%
One	27%
Two	31%
Three or more	14%
TOTAL with at least one cell phone	72%

TV, a significant number of older TVs will become obsolete. This may create a serious recycling challenge due not only to the volume but the increasing size of today's TVs.

Cell phones: Nearly three-fourths of Wisconsin households have cell phones (see Table 8), with an estimated total of nearly 3.5 million cell phones in the state. Fortunately there is a good basic in-

infrastructure for managing used cell phones. More than two-thirds of the cell phones that were discarded in 2005 were either traded in, recycled or donated to a charity. Nevertheless, nearly one-third were thrown in the trash or disposed of in some other way, which calculates out to nearly 200,000 cell phones each year.

Additional findings

Other interesting findings from the survey include:

- Nearly 90 percent of households said they were recycling the same amount or more than two years ago. No household reported no recycling activity at all.
- Nearly two-thirds of households are putting out the same amount of trash as two years ago, and about one-quarter are putting out less. About 1 in 10 is putting out more.
- Local communities also collect other materials that are not subject to the recycling law. Most prevalent are Clean Sweep programs for various household chemicals, used motor oil collections and medical waste programs.
- Nearly three-fourths of communities collect yard waste, but households dispose of yard waste in a number of ways—often in combination—including leaving it on the lawn (73 percent), composting (51 percent) and backyard burning (22 percent). Yard waste is banned from state landfills.

The tremendous support for the recycling program from Wisconsin citizens bodes well for Wisconsin's continued innovation and leadership in recycling. This report will help to assess Wisconsin's recycling and waste reduction efforts and may help guide future initiatives at the state and local levels.